

WHAT IS CLAIMED IS:

1 1. A system for controlling the temperature in a network interface device
2 that connects a communications channel in a communications network to a subscriber
3 premises, the communications channel carrying communications signals to the subscriber
4 premises, the system comprising:
5 a temperature controlling device; and
6 a power regulating circuit receiving the communications signals and providing
7 power from the communications signals that may be used for powering the temperature
8 controlling device.

1 2. The system of claim 1, further comprising:
2 a storage device for storing the power that may be used for powering the
3 temperature controlling device.

1 3. The system of claim 1, further comprising an auxiliary power source
2 that may be used for powering the temperature controlling device when the power from the
3 communications signals is insufficient for powering the temperature controlling device.

1 4. A system for controlling the temperature in a network interface device
2 that is located at a subscriber premises and that connects a communications channel in a
3 communications network to the subscriber premises, the system comprising:
4 a temperature controlling device;
5 a storage device for storing electrical power that may be used for powering the
6 temperature controlling device; and
7 a server for selectively passing electrical power from the communications
8 channel to the storage device.

1 5. The system of claim 4, further comprising a power regulating circuit
2 for generating electrical power from the communications channel, whereby the electrical
3 power may be passed by the server to the storage device.

1 6. The system of claim 4, wherein the server selectively passes electrical
2 power from the storage device to the temperature controlling device.

1 7. The system of claim 4, further comprising an auxiliary power source
2 that may be used for powering the temperature controlling device when the power from the
3 communications channel is insufficient for powering the temperature controlling device.

1 8. The system of claim 7, wherein the auxiliary power source is a solar
2 panel.

1 9. The system of claim 7, wherein the auxiliary power source is a
2 household electrical power source at the subscriber premises.

1 10. The system of claim 4, wherein the communications channel is a
2 telephone line comprised of a twisted pair of wires.

1 11. The system of claim 4, wherein the communications channel is a
2 coaxial cable.

1 12. The system of claim 4, wherein the storage device is a capacitor.

1 13. The system of claim 12, wherein the server passes current from the
2 communications channel to the capacitor when the charge maintained by the capacitor falls
3 below a predetermined level.

1 14. The system of claim 4, wherein the network interface device comprises
2 a processing device for processing signals received over the communications channel, and
3 wherein the temperature controlling device dissipates heat generated during operation of the
4 processing device.

1 15. The system of claim 14, wherein the temperature controlling device
2 comprises a fan.

1 16. The system of claim 15, wherein the server comprises a temperature
2 sensor for sensing the temperature at the processing device and for causing the temperature
3 controlling device to be activated when the temperature at the processing device reaches a
4 predetermined level.

1 17. The system of claim 14, wherein the communications channel
2 comprises a telephone line having a twisted pair of conductors, and wherein the processing
3 device comprises DSL modem.

1 18. The system of claim 4, wherein the network interface device is located
2 at the exterior of the subscriber premises.

1 19. The system of claim 4, wherein the communications channel is a
2 telephone line comprised of a twisted pair of conductors, wherein the telephone line carries
3 telecommunications signals for providing telecommunications services to the subscriber
4 premises, and wherein the telecommunications signals are used to provide electrical current
5 that may be stored at the storage device.

1 20. The system of claim 4, wherein the telecommunications services
2 comprise digital subscriber line (DSL) service using both low frequency signals that may
3 provide voice communications and high frequency signals that may provide data
4 communications, and wherein the low frequency signals are regulated for providing the
5 electrical power.

1 21. In a telecommunications network wherein a service provider network
2 provides telecommunications services to a subscriber over a telecommunications line
3 connected to a network interface device (NID) at the subscriber premises, a system for
4 cooling the NID comprising:

5 temperature controlling means for controlling the temperature at the NID;
6 storing means for storing electrical power at the NID; and
7 server means at the NID for selectively passing electrical power from the
8 telecommunications line to the storing means, so that the storing means may be used to
9 provide electrical power to the temperature controlling means.

1 22. The network of claim 21, wherein the telecommunications line is a
2 twisted pair telephone line, wherein the telephone line carries telecommunications signals for
3 providing both voice service and data service to the subscriber, wherein the NID further
4 comprises processing means that generate heat when using the telecommunications signals to
5 provide the data service, and wherein the telecommunications signals have electrical current
6 that may be selectively passed by the server means to the storing means for use in powering

7 the temperature controlling means, thereby dissipating heat generated at the processing
8 means.

1 23. The system of claim 21, further comprising auxiliary power means for
2 supplementing the electrical power at the storing means.

1 24. A network interface device (NID) located at a subscriber premises for
2 connecting a communications line to the subscriber premises, comprising:

3 an enclosure;

4 an electrically powered cooling device;

5 an storage device for storing electrical power for use in powering the cooling
6 device;

7 a sensor for sensing the temperature within the enclosure, so that the storage
8 device can be used to power the cooling device in response to a predetermined temperature
9 within the enclosure; and

10 a server for selectively passing current from telecommunications line to the
11 electrical storage device.

1 25. The NID of claim 24, further comprising:

2 a vent at the enclosure, so that the cooling device may be used for passing air
3 through the vent to thereby cool the NID.

1 26. The NID of claim 25, further comprising:

2 an active service component within the enclosure that is used to provide
3 telecommunications services to the subscriber and that generates heat, and wherein the
4 cooling device is used for dissipating the heat from the component.

1 27. A method for cooling a network interface device (NID) located at a
2 subscriber premises, the NID connecting a telecommunications line to the subscriber
3 premises, the method comprising:

4 providing a temperature controlling device at the NID;

5 powering the temperature controlling device with electrical power from a
6 storage device at the NID; and

7 using current from telecommunications signals on the telecommunications line
8 to store electrical power at the storage device.

1 28. The method of claim 27, further comprising:
2 periodically checking the level of power stored at the storage device, and
3 selectively passing current on the telecommunications line to the storage device when the
4 level of power stored is below a predetermined level.

1 29. The method of claim 28, wherein the temperature controlling device is
2 a cooling device, the method further comprising:
3 sensing the temperature at the NID; and
4 powering the cooling device when the temperature at the NID reaches a
5 predetermined level.

1 30. The method of claim 29, wherein the telecommunications line provides
2 DSL service to the subscriber premises, wherein the NID includes a DSL device, and wherein
3 the cooling device is powered to dissipate heat at the DSL device.

1 31. The method of claim 30, wherein the NID includes subscriber
2 telecommunications devices, wherein the subscriber premises includes subscriber equipment,
3 and wherein the method further comprises:
4 sensing the current level on the telecommunications line;
5 providing an alarm signal if the current level on the telecommunications line is
6 insufficient to properly power the devices within the NID and the equipment within the
7 subscriber premises.

1 32. The method of claim 27, further comprising:
2 supplementing the power from the storage device with power from an
3 auxiliary power source, when the power from the storage device is insufficient to power the
4 temperature controlling device.

1 33. A network interface device (NID) located at a subscriber premises for
2 connecting a communications line to the subscriber premises, comprising:
3 an enclosure;
4 an electrically powered device within the enclosure;
5 an storage device for storing electrical power for use in powering the
6 electrically powered device; and

- 7 a server for selectively passing current from
- 8 telecommunications line to the storage device.